

INTERNATIONAL SEARCH REPORT

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International Application No. 10/520415
PCT/03/02119

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C09J103/02 D21H19/34 D06M15/03 D21H19/54 D06M15/11

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C09J C08B D21H D06M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

CHEM ABS Data, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| A | US 4 052 226 A (VERBANAC) 4 October 1977 (1977-10-04) abstract column 2, line 12 - line 14 column 9 - column 11; tables 1, 2 column 13; table 3 | 1-4, 11 |
| A | FR 2 149 640 A (ROQUETTE FRERES) 30 March 1973 (1973-03-30) cited in the application page 1, line 22 - line 24 page 9, line 19 - page 10, line 15 page 12, line 27 - page 13, line 3 -/- | 1-14 |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

19 November 2003

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PCT/03/02119

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| A | FR 2 447 388 A (ROQUETTE FRERES) 22 August 1980 (1980-08-22) page 2, line 24 - line 29 examples 1,2,6,7 claims | 1-14 |
| A | FR 2 445 839 A (ROQUETTE FRERES) 1 August 1980 (1980-08-01) page 1, line 19 -page 2, line 7 page 10, line 24 - line 31 | 11 |
| A | US 5 354 424 A (RHA ET AL.) 11 October 1994 (1994-10-11) the whole document | 1-14 |
| A | EP 0 690 170 A (COOPERATIEVE VERKOOP- EN PRODUCTIEVERENIGING VAN AARDAPPELMEEL EN DERI) 3 January 1996 (1996-01-03) claims | 1-14 |
| A | WO 99 35325 A (NOVO NORDISK AS) 15 July 1999 (1999-07-15) | |
| A | FR 1 548 941 A (CORN PRODUCTS COMPANY) 6 December 1968 (1968-12-06) | |
| A | DATABASE CHEMABS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; retrieved from STN Database accession no. 124:28674 XP002244880 abstract & JP 07 258466 A (NIPPON KOONSUTAACHI KK) 9 October 1995 (1995-10-09) | |
| A | US 3 503 794 A (D.D. DONERMAYER ET AL) 31 March 1970 (1970-03-31) | |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP03/02119

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|----------------------------|---------------------|
| US 4052226 | A | 04-10-1977 | NONE | |
| FR 2149640 | A | 30-03-1973 | FR 2149640 A5 | 30-03-1973 |
| | | | BE 787674 A1 | 19-02-1973 |
| | | | DE 2159315 A1 | 08-03-1973 |
| | | | GB 1406508 A | 17-09-1975 |
| | | | IT 963079 B | 10-01-1974 |
| | | | NL 7211239 A ,B, | 20-02-1973 |
| FR 2447388 | A | 22-08-1980 | FR 2447388 A1 | 22-08-1980 |
| | | | BE 881268 A1 | 22-07-1980 |
| | | | DE 3002190 A1 | 31-07-1980 |
| | | | IT 1129708 B | 11-06-1986 |
| | | | NL 8000386 A ,C | 25-07-1980 |
| FR 2445839 | A | 01-08-1980 | FR 2445839 A1 | 01-08-1980 |
| | | | AU 544352 B2 | 23-05-1985 |
| | | | AU 5445480 A | 17-07-1980 |
| | | | BE 881029 A1 | 08-07-1980 |
| | | | CA 1173770 A1 | 04-09-1984 |
| | | | CH 648044 A5 | 28-02-1985 |
| | | | DE 3000465 A1 | 17-07-1980 |
| | | | GB 2042547 A ,B | 24-09-1980 |
| | | | JP 1834284 C | 29-03-1994 |
| | | | JP 4021681 B | 13-04-1992 |
| | | | JP 55124497 A | 25-09-1980 |
| | | | NL 8000091 A ,B, | 10-07-1980 |
| | | | US 4445938 A | 01-05-1984 |
| | | | ZA 8000094 A | 28-01-1981 |
| US 5354424 | A | 11-10-1994 | US 5366755 A | 22-11-1994 |
| | | | AT 138388 T | 15-06-1996 |
| | | | AT 127664 T | 15-09-1995 |
| | | | AU 631842 B2 | 10-12-1992 |
| | | | AU 4933390 A | 16-08-1990 |
| | | | AU 4933490 A | 16-08-1990 |
| | | | AU 620207 B2 | 13-02-1992 |
| | | | AU 4933590 A | 16-08-1990 |
| | | | CA 2009675 A1 | 10-08-1990 |
| | | | CA 2009676 A1 | 10-08-1990 |
| | | | CA 2009677 A1 | 10-08-1990 |
| | | | DE 69022260 D1 | 19-10-1995 |
| | | | DE 69022260 T2 | 14-03-1996 |
| | | | DE 69027054 D1 | 27-06-1996 |
| | | | DE 69027054 T2 | 31-10-1996 |
| | | | DE 382576 T1 | 13-06-1991 |
| | | | DE 382577 T1 | 13-06-1991 |
| | | | DE 382578 T1 | 13-06-1991 |
| | | | DK 382577 T3 | 17-06-1996 |
| | | | DK 382578 T3 | 09-10-1995 |
| | | | EP 0382576 A1 | 16-08-1990 |
| | | | EP 0382577 A1 | 16-08-1990 |
| | | | EP 0382578 A2 | 16-08-1990 |
| | | | ES 2022084 T3 | 16-10-1996 |
| | | | ES 2022087 T3 | 16-02-1996 |
| | | | FI 103583 B1 | 30-07-1999 |
| | | | GR 91300043 T1 | 15-11-1991 |
| | | | GR 91300045 T1 | 15-11-1991 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/FR 03/02119

| Patent document cited in search report | | Publication date | Patent family member(s) | Publ. date |
|---|---|---------------------|----------------------------|---------------|
| US 5354424 | A | | GR 9130047 T1 | 15-11-1991 |
| | | | GR 3018003 T3 | 29-02-1996 |
| | | | GR 3020441 T3 | 31-10-1996 |
| | | | JP 2245001 A | 28-09-1990 |
| | | | JP 3071442 B2 | 31-07-2000 |
| | | | JP 2245002 A | 28-09-1990 |
| | | | JP 2915044 B2 | 05-07-1999 |
| | | | JP 3022961 A | 31-01-1991 |
| | | | NZ 232432 A | 25-09-1991 |
| | | | NZ 232433 A | 21-12-1990 |
| | | | NZ 232434 A | 25-09-1991 |
| | | | US 5525368 A | 11-06-1996 |
| | | | US 5569483 A | 29-10-1996 |
| | | | US 5543162 A | 06-08-1996 |
| | | | AU 8174291 A | 13-02-1992 |
| | | | CA 2042559 A1 | 11-02-1992 |
| | | | EP 0470870 A1 | 12-02-1992 |
| | | | FI 913094 A | 11-02-1992 |
| | | | FI 913095 A | 11-02-1992 |
| | | | JP 4229157 A | 18-08-1992 |
| | | | AT 129764 T | 15-11-1995 |
| EP 690170 | A | 03-01-1996 | NL 9401090 A | 01-02-1996 |
| | | | AT 196172 T | 15-09-2000 |
| | | | DE 69518702 D1 | 12-10-2000 |
| | | | DE 69518702 T2 | 01-02-2001 |
| | | | DK 690170 T3 | 16-10-2000 |
| | | | EP 0690170 A1 | 03-01-1996 |
| | | | ES 2151575 T3 | 01-01-2001 |
| WO 9935325 | A | 15-07-1999 | AU 1663799 A | 26-07-1999 |
| | | | WO 9935325 A1 | 15-07-1999 |
| FR 1548941 | A | 06-12-1968 | BE 708104 A | 18-06-1968 |
| | | | CH 520201 A | 15-03-1972 |
| | | | DE 1792779 A1 | 25-11-1976 |
| | | | DE 1567365 A1 | 06-08-1970 |
| | | | ES 348349 A1 | 01-03-1969 |
| | | | GB 1203048 A | 26-08-1970 |
| | | | IT 1043769 B | 29-02-1980 |
| | | | NL 6717211 A | 20-06-1968 |
| | | | SE 357575 B | 02-07-1973 |
| | | | US 3849194 A | 19-11-1974 |
| | | | CH 520769 A | 31-03-1972 |
| | | | ES 348350 A1 | 01-11-1969 |
| | | | NL 6717212 A | 25-09-1968 |
| | | | SE 357767 B | 09-07-1973 |
| | | | US RE30880 E | 09-03-1982 |
| | | | US 3560343 A | 02-02-1971 |
| | | | US 3853706 A | 10-12-1974 |
| JP 07258466 | A | 09-10-1995 | NONE | |
| US 3503794 | A | 31-03-1970 | NONE | |